

REMARKS

Claims 1-12 are pending in this application. By this Amendment, the Specification, Abstract, claims 1, 2, 4 and 6-8 are amended, and claims 10-12 added. No new matter is added. Reconsideration in light of the amendments and the following remarks is respectfully requested.

The Office Action objects to the Abstract and specification. These objections are respectfully traversed.

The Abstract is revised for clarity and to remove legalese phraseology. The Specification is revised for clarity and to add headings as requested by the Examiner. Withdrawal of the objections is respectfully requested.

The Office action rejects claims 1-9 under 35 U.S.C. §112, second paragraph. This rejection is respectfully traversed.

The claims are amended for clarity to address the specific informalities noted in the Office Action. In particular, the rejected words or phrases "type" and "or the like" and "the same" have been revised for clarity. Additionally, "end faces" has been revised for proper antecedent support. Claim 7 is also revised for clarity. Claims 1-9 are concise and definite. Withdrawal of the rejection is respectfully requested.

The Office Action rejects claims 1-6 under 35 U.S.C. §102(b) over U.S. Patent No. 5,313,853 to Olmsted and rejects claims 7-9 under 35 U.S.C. §103(a) over Olmsted in view of U.S. Patent No. 4,519,266 to Reinecke. These rejections are respectfully traversed.

Independent claim 1 is revised for clarity and claims 10-12 added. These claims, and claims dependent therefrom, distinguish over the applied references for at least the following reasons.

Independent claim 1 is directed to a "manually operated electric control device...wherein the position of the control lever can be detected by a sensing technology for

generating a control signal" (emphasis added). Olmsted is directed to a manual shifter assembly for a manual automotive transmission that relies on a mechanical linkage with the transmission to change a drive ratio (col. 3, lines 47-59 and col. 4, lines 7-12). This is also evident to one of ordinary skill in the art from Fig. 2 where the ball-shaped tip 28 of the control lever is shown connected to a portion of mechanical linkage of the transmission. Therefore, Olmsted is not an electric control device as claimed, does not generate a control signal, and does not even relate to the same technical field as the subject matter of claim 1, which is like an electric "joystick" for controlling a device, such as the driving speed and driving direction of a chassis drive (Applicants' specification at pg. 5) or for proportional adjustment of hydraulic valves or hydraulic consumers (Applicants' specification at pg. 1).

Moreover, Olmsted fails to disclose the specific structure forming the first and second pivotal axes recited in amended claim 1. In particular, claim 1 recites "wherein the bearing tappets immerse in respective bearing sections, each bearing section including a cylinder section with a convexly curved external cylinder surface which is guided in a correspondingly designed concavely curved internal cylinder surface of a bearing bush having the form of a cylinder bush so that a second pivot axis is formed." These features are not provided for in Olmsted.

Rather, the alleged bearing tappets 56, 58 in Olmsted are located solely within bushings 60, which are completely remote from any structure that provides the second pivot axis. That is, the alleged bearing tappets 56, 58 are not immersed in bearing sections that include "a cylinder section with a convexly curved external cylinder surface which is guided in a correspondingly designed concavely curved internal cylinder surface of a bearing bush having the form of a cylinder bush so that a second pivot axis is formed" as recited in claim 1. These features are shown, for example, in Applicants' Fig. 2 where bearing tappets 26, 28 are immersed in cylinder sections 34, 36 having a convexly curved external cylinder surface 46,

48 guided in bearing bushes 54, 56 against concavely curved internal cylinder surfaces 50, 52. With this structure, the control lever can be pivoted about the first axis (Fig. 3) without the cylinder sections forming the second pivot axis pivoting as well. That is, the second axis can retain a position relative to the housing while the lever is pivoted about the first axis.

Because Olmsted fails to teach each and every feature of independent claim 1, this claim and claims dependent therefrom are not anticipated by Olmsted.

Reinecke fails to overcome the deficiencies of Olmsted with respect to independent claim 1. While Reinecke mentions that its shifter is used for an indirectly operated transmission and that control signals are provided from sensors (col. 1, lines 6-10 and col. 2, lines 3-25), Reinecke fails to disclose the specific structure forming the first and second pivot axes recited in claim 1. Instead, Reinecke describes a pivoting structure using gimbals and two shafts (col. 1, lines 64-68 and Fig. 1). This pivoting structure is entirely different from that claimed. Thus, Reinecke alone fails to teach the features recited in independent claim 1.

Moreover, Reinecke is not combinable with Olmsted for several reasons. First, as discussed above, Olmsted is directed to a mechanical shifter that relies on a mechanical shift linkage for operation of a transmission, and is only concerned with end point engagements in gears through use of a typical H-pattern shift gate. This is an entirely different technical field from an electric control device and different from even the indirectly operated shifter in Reinecke.

Second, Reinecke is not combinable with Olmsted because the structures are incompatible. Reinecke discloses the use of two arms, arranged inside a spherical housing. Permanent magnets are provided on the arms to activate sensors arranged in a side wall of the housing for determining gear selection and an end position of the gear shift lever. One of the arms is attached to the gear shift lever (col. 2, lines 3-19 and Fig. 1), while the other is attached to one of the two shafts defining a rotation axis (col. 2, lines 20-25). Because of

Reinecke's use of gimbals and two shafts as a pivoting structure, there is enough space to accommodate the arms. However, Olmsted teaches a compact arrangement in which bushings are slidingly engaged to respective walls (col. 4, lines 27-31). It would not have been readily apparent to one of ordinary skill in the art how to provide sensors in the side walls as taught by Reinecke in the Olmsted shifting structure without danger of the bushing engaging the side wall and coming into contact with a sensor, leading to damage to the sensor.

Third, even were one of ordinary skill in the art able to combine the teachings of Olmsted and Reinecke, one would not have arrived at the subject matter recited in claim 1 as neither reference teaches the features discussed above. Therefore, claim 1, and claims dependent therefrom, would not have been obvious from Olmsted alone, or in view of Reinecke.

With respect to new dependent claim 10, this claim specifies that "the control lever is pivotable about the first axis without the cylinder section forming the second axis rotating." This feature is described, for example, on pg. 8, line 30 to pg. 9, line 5 and shown in Figs. 1-3 and achieved by the structure recited in claim 1. In Olmsted, when the shift lever is pivoted about shaft 54, the second pivot axis shifts relative to the housing. This is because Olmsted teaches use of a spherical joint to pivot the shifter through use of rocking shaft 54, bushings 60, and spherical ball section 40 inside socket 36 (col. 4, lines 27-31 and the Figures). When the shifter is pivoted about shaft 54, the spherical ball section 40 also pivots within the socket 36. Reinecke fails to overcome the deficiencies of Olmsted. Accordingly, claim 10 distinguishes over Olmsted alone, or in view of Reinecke, for its dependence on base claim 1 and for the additional features recited therein.

With respect to new dependent claim 11, this claim specifies that "the first and second pivot axes are provided at a longitudinal end of the control lever." In contrast, because of the

necessity of the extending ball section 28 to move to allow proper movement of the mechanical shifter linkages with the transmission, the pivot axes in Olmsted are located intermediate the shift lever as shown in Olmsted's Fig. 2. Reinecke similarly provides its pivot axes intermediate the shift lever as shown in Figs. 13 and 14. Accordingly, claim 11 distinguishes over Olmsted alone, or in view of Reinecke, for its dependence on base claim 1 and for the additional features recited therein.

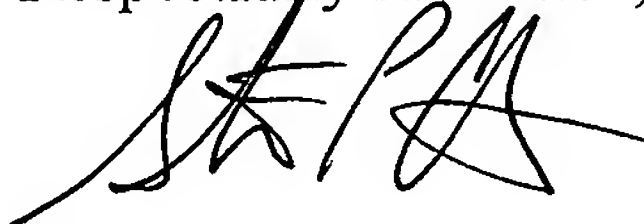
With respect to dependent claim 12, neither Olmsted nor Reinecke teach a permanent magnet received in the receiving chamber and an annular groove provided around the bearing bush, the annular groove receiving magnetic field sensors associated with the permanent magnet to form the sensing technology for generating a control signal as claimed. Both Olmsted and Reinecke relate to transmission shifters that use a gated H-type pattern in which only the end position of travel is relevant to provide gear change. Neither is concerned with a control device where all positions, including intermediate positions, within the two axes of rotation may be pertinent to control, such as with an electric control device used to control hydraulic valve actuation or adjustment, or driving speed and direction of a chassis drive as described on Applicants' specification at pgs. 1 and 5. Therefore, there is no rationale for the provision of the permanent magnet and annular groove for receiving magnetic field sensors as claimed. Accordingly, claim 12 distinguishes over Olmsted alone, or in view of Reinecke, for its dependence on base claim 1 and for the additional features recited therein.

Withdrawal of the rejections is respectfully requested.

In view of the foregoing, it is respectfully submitted that this application is in condition for allowance. Favorable reconsideration and prompt allowance of claims 1-12 are earnestly solicited.

Should the Examiner believe that anything further would be desirable in order to place this application in even better condition for allowance, the Examiner is invited to contact the undersigned at the telephone number set forth below.

Respectfully submitted,



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Attachments:

Substitute Abstract
Mark-up Copy of Substitute Specification
Clean Copy of Substitute Specification

Date: December 28, 2009

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